

Histone H1X (E-5): sc-514856

BACKGROUND

Histone H1X is also known as H1FX (H1 histone family, member X) and is a 213 amino acid protein that is localized to the nucleus. Histone H1X belongs to the Histone H1/H5 family and is an H1 Histone, which are important in the process of condensing nucleosome chains into structures inside chromosomes. H1 Histones also regulate DNA repair and replication as well as gene expression. During interphase, Histone H1X accumulates in nucleoli in the G₁ phase and is evenly distributed throughout the nucleus during the S and G₂ phases of the cell cycle. During mitosis, Histone H1X is distributed along chromosomes, mostly on the chromosomal surface. Neuroendocrine cells and tumors possess large quantities of Histone H1X.

REFERENCES

1. Yamamoto, T. and Horikoshi, M. 1996. Cloning of the cDNA encoding a novel subtype of Histone H1. *Gene* 173: 281-285.
2. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 602785. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Happel, N., et al. 2005. Characterisation of human Histone H1X. *Biol. Chem.* 386: 541-551.
4. Stoldt, S., et al. 2007. G₁ phase-dependent nucleolar accumulation of human histone H1X. *Biol. Cell* 99: 541-552.

CHROMOSOMAL LOCATION

Genetic locus: H1FX (human) mapping to 3q21.3; H1fx (mouse) mapping to 6 D1.

SOURCE

Histone H1X (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 152-178 within an internal region of Histone H1X of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514856 X, 200 µg/0.1 ml.

Histone H1X (E-5) is available conjugated to agarose (sc-514856 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514856 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514856 PE), fluorescein (sc-514856 FITC), Alexa Fluor® 488 (sc-514856 AF488), Alexa Fluor® 546 (sc-514856 AF546), Alexa Fluor® 594 (sc-514856 AF594) or Alexa Fluor® 647 (sc-514856 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514856 AF680) or Alexa Fluor® 790 (sc-514856 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514856 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Histone H1X (E-5) is recommended for detection of Histone H1X of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

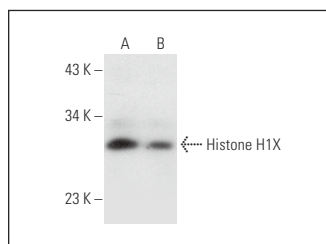
Suitable for use as control antibody for Histone H1X siRNA (h): sc-78523, Histone H1X siRNA (m): sc-146034, Histone H1X shRNA Plasmid (h): sc-78523-SH, Histone H1X shRNA Plasmid (m): sc-146034-SH, Histone H1X shRNA (h) Lentiviral Particles: sc-78523-V and Histone H1X shRNA (m) Lentiviral Particles: sc-146034-V.

Histone H1X (E-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

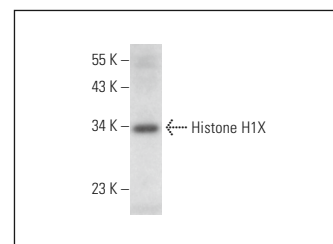
Molecular Weight of Histone H1X: 30 kDa.

Positive Controls: HEK293T whole cell lysate: sc-45137, WEHI-231 nuclear extract or Jurkat whole cell lysate: sc-2204.

DATA



Histone H1X (E-5): sc-514856. Western blot analysis of Histone H1X expression in HEK293T (A) and Jurkat (B) whole cell lysates.



Histone H1X (E-5): sc-514856. Western blot analysis of Histone H1X expression in WEHI-231 nuclear extract.

SELECT PRODUCT CITATIONS

1. Zheng, X., et al. 2022. Downregulation of HINFP induces senescence-associated secretory phenotype to promote metastasis in a non-cell-autonomous manner in bladder cancer. *Oncogene* 41: 3587-3598.
2. Farzamikia, N., et al. 2024. Podocyte-specific proteins in urinary extracellular vesicles of patients with IgA nephropathy: vasorin and ceruloplasmin. *Bioimpacts* 14: 29981.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.